

REMARKS

Reconsideration and allowance are respectfully requested.

Remarks Regarding Amendments

The amendments to the Specification may be found throughout the Specification. For example, support for the amendments to paragraph [0017] of the published Application may be found in the same paragraph since, in the sentence previous to the change carbon and nitrogen is mentioned but subsequently “nitrogen” is mentioned twice and “carbon” is omitted. Further evidence for this obvious mistake may be found in paragraph [0018] of the published Application. Support for the amendment to paragraph [0033] may be found in the formula of claim 7.

Support for the amendment to claims 2, 4, 11, 13 and 17 is in the original claims, such as, for example, in claims 2, 4, 11, 13 and 17. Support for the amendment to claim 7 is in paragraph [0033] of the published Application. Support for the amendment to claim 9 is in paragraph [0038] of the published Application (See, formula 9). Finally, claim 19 is amended to correct a typographical error.

No new matter is added by the claim amendments and its entry is requested.

Remarks Regarding Section 112

Claims 7, 9-18 stand rejected under 35 U.S.C. Section 112, second paragraph, as allegedly “indefinite. Applicants traverse. Each of the rejections is addressed below.

Claim 7 is allegedly indefinite because the variable Y is not defined. This claim has been amended to further define the variable Y.

Claims 9 and 10 are allegedly indefinite because a formula in the claims is missing the variable “D.” Claim 9 has been amended to correct this. Claim 10 is also corrected because it depends on claim 9 and incorporates the recitations of claim 9.

Claims 11 and 12 are allegedly indefinite because the variable “n” is not defined. Claim 11 has been amended to correct this. Claim 12 is also corrected because it depends on claim 11 and incorporates the recitations of claim 11.

Claims 13-16 and 18 are allegedly indefinite because the variable "R" is not part of formula 10. The claim has been amended to indicate that the "S" in Formula 10 can be represented by formula 13. Formula 13 contains the optional variable "R." Thus, R is part of formula 10 because R is an optional group in Formula 13, which represents variable "S", which is part of Formula 10. Claims 14-16 and 18 are also corrected because it depends on claim 13 and incorporates the recitations of claim 11.

Claim 17 is allegedly indefinite because formula 10 is missing. The claim has been amended to insert Formula 10.

Claim 19 is allegedly indefinite because it depends on itself (claim 19). This has been corrected by amendment. Amended claim 19 depends of claim 18.

Applicants request withdrawal of the all of the Section 112, second paragraph, rejections because the pending claims are clear and definite.

Remarks Regarding Section 102

A claim is anticipated only if each and every limitation as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of Calif.*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is claimed. See *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Claims 1-6, 8, 13, 14, 16 and 17 stand rejected under 35 U.S.C. 102 as allegedly anticipated by Zhang (Zhang et al. J. Am. Chem. Soc. vol. 122, No. 23, pp. 5499-5509 (2000), copy enclosed). Applicants traverse.

The claimed invention is not anticipated by Zhang or Stephan (see the second anticipation rejection below) at least because the claimed invention is a single step process while the cited references refer to multistep processes. The claimed invention provides a process for the preparation of hydrocarbylated metal organic compounds prepared from a metal-organic compound and a spectator ligand in one step only. In contrast, both Zhang and Stephan teach processes for preparation of hydrocarbylated metal organic compounds prepared by multistep approaches that are broadly known in the art. Instead of anticipating the claimed invention, Zhang and Stephan underline the

actual lack of a one step synthesis process for hydrocarbylated metal organic compounds and further strengthen the claims of the present invention.

More explicitly, in Zhang, the hydrocarbylated metal organic compound as depicted by Scheme 1 is synthesized by the sequence of isolated reaction steps of

- 1) $t\text{Bu}-\text{CN} + t\text{Bu Li} \rightarrow t\text{Bu}_2\text{C}=\text{NLi}$
- 2) $t\text{Bu}_2\text{C}=\text{NLi} + \text{CpTiCl}_3 \rightarrow \text{Cp}(t\text{Bu}_2\text{C}=\text{N})\text{TiCl}_2$ and
- 3) $\text{Cp}(t\text{Bu}_2\text{C}=\text{N})\text{TiCl}_2 + \text{MeMgBr} \rightarrow \text{Cp}(t\text{Bu}_2\text{C}=\text{N})\text{TiMe}_2$

Whereas the present invention yields the identical hydrocarbylated metal organic compound by a one step method:



It is clear to a person of ordinary skill in the art that the preparation method according to the present invention represents a substantial improvement over Zhang and is in consequence not anticipated by Zhang.

Claims 1-6, 8, 13, 14, 16 and 19 stand rejected under 35 U.S.C. 102 as allegedly anticipated by Stephan (Stephan et al., Organometallics, vol. 18, no. 7, pp. 1116-1118 (1999)). Applicant traverse.

As discussed above, the claimed invention is not anticipated by Stephan because the claimed invention is directed to a single step process while Stephan is directed to a multiple step method. Specifically, in Stephan, the hydrocarbylated metal organic compounds Scheme 1 is synthesized by the sequence of isolated reaction steps:

- 1) $t\text{Bu}_3\text{P}=\text{N} + \text{Me}_3\text{Si-N}_3 \rightarrow t\text{Bu}_3\text{P}=\text{N-SiMe}_3$ (see footnotes 25 and 26 in Stephan)
- 2) $t\text{Bu}_3\text{P}=\text{N-SiMe}_3 + \text{Cp}'\text{TiCl}_3 \rightarrow \text{Cp}'(t\text{Bu}_3\text{P}=\text{N})\text{TiCl}_2$ and
- 3) $\text{Cp}'(t\text{Bu}_3\text{P}=\text{N})\text{TiCl}_2 + \text{MeMgBr} \rightarrow \text{Cp}'(t\text{Bu}_3\text{P}=\text{N})\text{TiMe}_2$

Whereas the present invention yields the identical hydrocarbylated metal organic compound (see Example I) by a one step method:



It is clear to a person of ordinary skill in the art that the preparation method according to the present invention represents a substantial improvement over Stephan and is in consequence not anticipated by Stephan.

For the reasons stated above, neither Zhang nor Stephan anticipate the claimed invention because neither references disclose a one step process. Applicants submit that this feature of the claimed invention is sufficient to distinguish over Zhang and Stephan so any other incorrect allegations about its disclosure are not disputed here, but the opportunity to dispute them in the future is reserved.

Withdrawal of all of the Section 102 rejections is requested because the cited document fails to disclose all limitations of the claimed invention.

Conclusion

Having fully responded to the pending Office Action, Applicants submit that the claims are in condition for allowance and earnestly solicit an early Notice to that effect. The Examiner is invited to contact the undersigned if additional information is required.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By:


Eric Sinn
Reg. No. 40,177
Graun Tanigawa
#43180

901 North Glebe Road, 11th Floor
Arlington, VA 22203-1808
Telephone: (703) 816-4000
Facsimile: (703) 816-4100